

NG9-1-1 and ShotSpotter

August 18, 2011

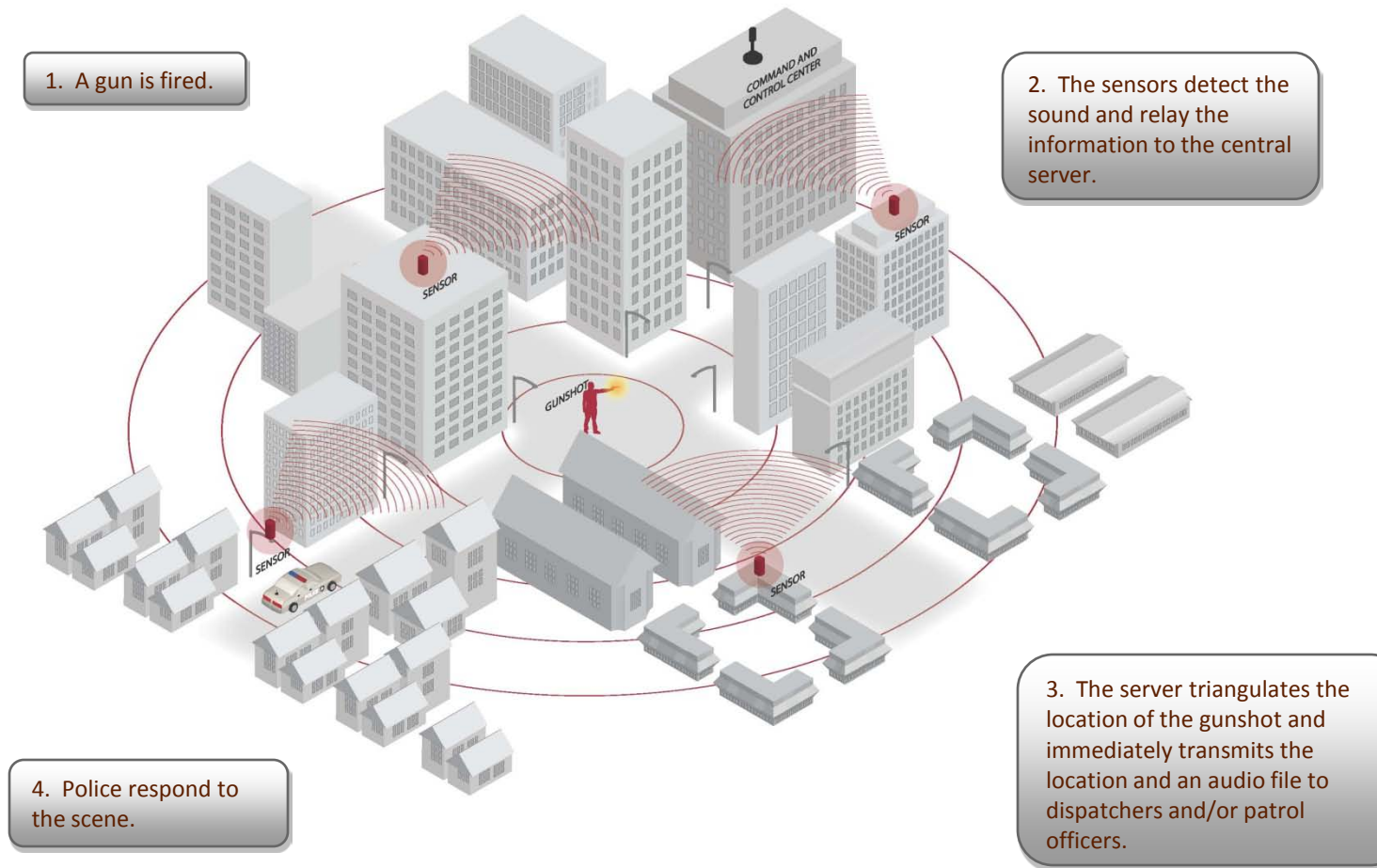
Overview

- **About ShotSpotter**
- **Gunfire and the 911 System**
- **Capabilities and Deployments**
- **ShotSpotter and NG9-1-1**

ShotSpotter Background

- Founded in 1995 and based in the Mountain View area of Silicon Valley
- Venture Capital backed with leading institutional Investors
- An applied technology innovation with over 20 issued patents
- Deployed in 58 US cities and 4 countries

How It Works



Gunfire and the 911 System

A large iceberg floats in a dark blue ocean under a clear blue sky. The tip of the iceberg, which is visible above the water, is relatively small and jagged. The vast majority of the iceberg is submerged below the water line, illustrating the concept that most gun crime incidents go unreported.

In many crime-ridden areas, as few as 25% of gunfire incidents are called into 911

Gunfire and the 911 System

- Approximately 2/3 of all homicides are committed using a firearm (CDC 2007)
- Even when reported, the caller can often only provide imprecise information on location and number of shots fired



**CALLER ONE: HEARD 5-6 SHOTS
UNKNOWN DIRECTION**

**CALLER TWO: HEARD 4-5 SHOTS
COMING FROM THE NORTH**

**CALLER THREE: HEARD 6-7 SHOTS
POSSIBLY STREET BEHIND**

ShotSpotter Response Capabilities

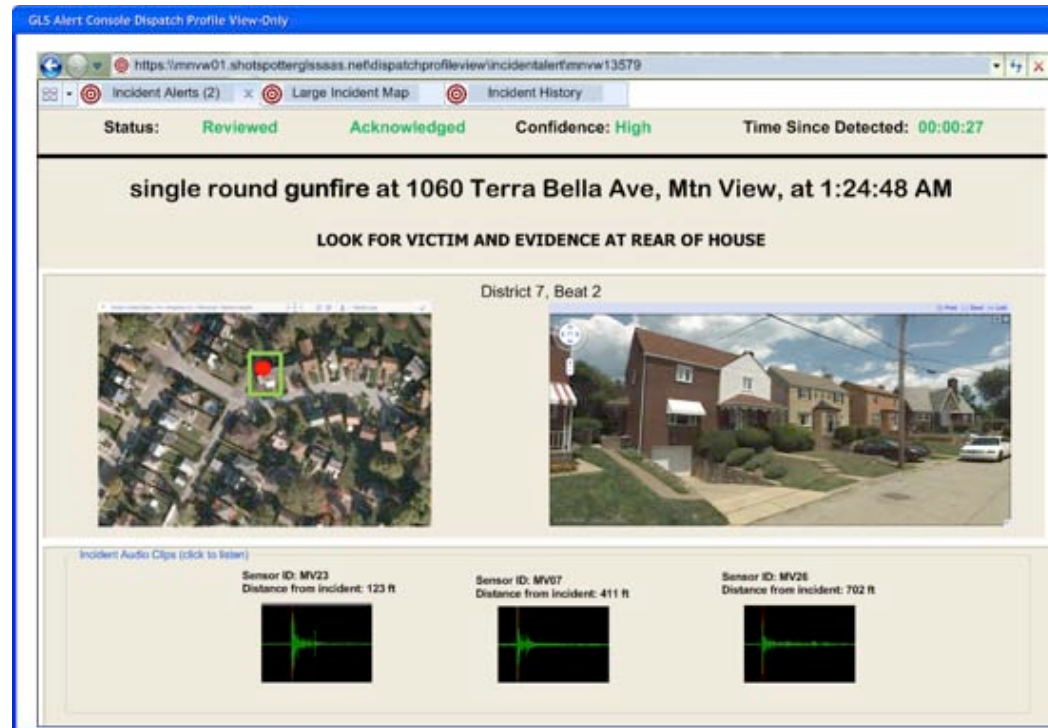
911 call –

When reported, general location of shots fired



ShotSpotter –

Precise location of shots fired, number of rounds



THE VALUE CHAIN OF GUNSHOT DETECTION & LOCATION



Incident Response

Incident Response

- Actionable situational intelligence
- Safer & more effective strategic & tactical response
- Increased apprehensions & firearm confiscations
- Increases officer safety
- Increases community safety & reinforces positive community engagement

THE VALUE CHAIN OF GUNSHOT DETECTION & LOCATION



**Incident
Response**

**Investigations
& Forensics**

Investigations & Forensics

- Faster location of evidence & witnesses
- Improves productivity of investigative resources
- Forensic data (e.g. audio files) strengthens investigations

THE VALUE CHAIN OF GUNSHOT DETECTION & LOCATION



Prosecutions

- Empirical data to strengthen prosecution
- Incident data is court-admissible & defensible
- Expert witness services & certified forensic reports

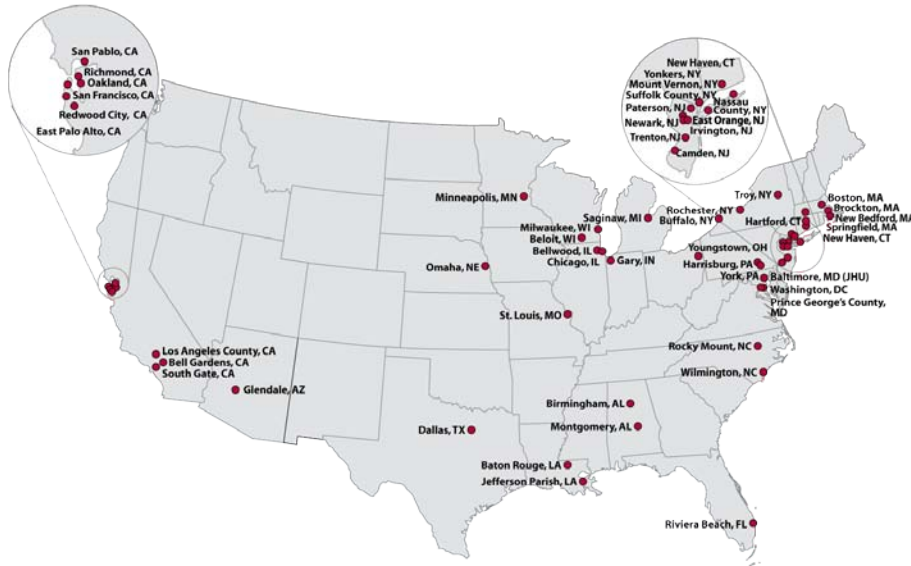
THE VALUE CHAIN OF GUNSHOT DETECTION & LOCATION



Crime Analysis & Intelligence

- Provides in-depth information otherwise unattainable
- Strengthens predictive analysis & intelligence
- Improves crime reporting & analysis to track improvements & support funding

ShotSpotter Deployments Worldwide




79 installations

58 US cities; **4** countries

180+ square miles monitored

1.5 million+ citizens protected

17 customer expansions
by satisfied customers



Testimonials

- Washington, D.C.

"We get there sooner, which means we're more likely to catch the person responsible. For an injured person, it can be the difference between living and dying." Former Chief of Police Charles H. Ramsey, Metropolitan Police Department

- Los Angeles, CA

"We've had numerous cases in which we've found victims laying there bleeding from gunshot wounds. If we wouldn't have been notified via the ShotSpotter system, there's a good chance some of these people would've died." Sheriff Lee Baca, Los Angeles County Sheriff's Department

- Rochester, NY

"The city of Rochester has seen a 43 percent reduction in gunfire since the system went live in July of 2006. Within 48 hours of turning the system on we had our first felony arrest." Mike Bialaszewski, Rochester Police Department

- Minneapolis, MN

"Evidence from the ShotSpotter system and the city's public safety video cameras has been used in 'hundreds' of cases since it was first installed four years ago, often corroborating other bits of evidence or assisting investigators with solid proof of people's whereabouts." Deputy Chief Rob Allen, Minneapolis Police Department

2011 Efficacy Study



The first analyst report on the capability and effectiveness of the gunshot location system as a critical technology for public safety and law enforcement. Endorsed by the NOBLE (National Organization of Black Law Enforcement Executives).

Key Findings

- ShotSpotter deployments increase positive community engagement with law enforcement
- ShotSpotter accuracy enables a faster response to gunfire
- Patrol officers trust ShotSpotter data over traditional 9-1-1 calls and subsequent dispatch information
- ShotSpotter has changed the way detectives approach homicide investigations
- ShotSpotter increases officer safety when responding to gunshot calls
- ShotSpotter provide agencies critical incident data that was previously unavailable
- ShotSpotter allows agencies to better measure the true level of gunfire in their jurisdictions

Select Interview Responses

"It's just like being put at a crime scene literally as the crime is being committed."

"It's an incredible benefit to me as a police administrator to be able to walk into a community that in other places may be very hostile or mistrusting of the police. It builds a relationship between the law enforcement organization and the community."

"The benefit to the individual police officer's situational awareness is incalculable."

ShotSpotter and NG9-1-1

- Integration of sensor and surveillance capabilities, including acoustic sensing capabilities, enhance the public value of today's 911 systems as well as NG9-1-1 systems
 - Information is delivered in real-time directly to PSAPs and First Responders via a client/browser-based application, enabling increased responsiveness
 - Readily interfaces with complementary systems, enabling increased effectiveness
 - Automatic entry of requests for assistance into computer-aided dispatch
 - Automatic and immediate turning of video surveillance cameras toward the location of the incident plus surrounding egress routes
 - Feeds incident information directly into common operating picture systems
- Currently, ShotSpotter is integrating with NG9-1-1 solutions such as Intrado's A911™ emergency services IP network

ShotSpotter and NG9-1-1

- Notice of Inquiry set the foundation for device-initiated alerts in the upcoming NPRM
 - “In an IP-based network architecture, emergency calls can be placed not only by human beings, but by a variety of automatically triggered devices” (¶ 58)
 - “We seek comment on how the deployment of NG911 will facilitate the ability of device-initiated emergency services to reach PSAPs” (¶ 58)
- ShotSpotter NOI Comments (filed Feb. 28, 2011)
 - ShotSpotter remedies the problems of unreported and inaccurate gunfire information, enabling law enforcement agencies to respond in a timely, accurate, and appropriate fashion
 - The FCC should advance an NG9-1-1 framework that embraces device-initiated, automatic alerting technologies like ShotSpotter, providing real-time, situational intelligence to emergency responders

ShotSpotter and NG9-1-1

- In preparing the upcoming NPRM, the Commission should:
 - Ensure a broad vision of NG9-1-1 that embraces device-initiated emergency response requests
 - Help lead an effort to update existing laws, regulations, and tariffs to facilitate the incorporation of device-initiated emergency response requests
 - Promote the continued dialog among NG9-1-1 stakeholders

Questions?

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